

Preparation and Applications of Shirasu Porous Glass from Volcanic Glass

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Abstract

Microporous glass materials were prepared by making use of phase separation in immiscibility region of a glass of $\text{CaO-Al}_2\text{O}_3\text{-B}_2\text{O}_3\text{-SiO}_2$ system from volcanic glass. Because of their uniformly controlled pores and possibility of designing the pore size, various applications of the material are promised in advanced technologies. In this paper preparing process of the porous glass, their physical and chemical properties and some applications were introduced and discussed.